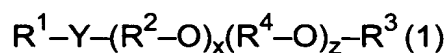


Amendments to the Claims

1. (Currently Amended) ~~The use of polymers, which can be~~A plant protection formulation comprising at least one pesticidal active substance and a crystallization inhibitor, wherein the crystallization inhibitor is prepared by radical copolymerization of
- A) acrylamidopropylmethylenesulfonic acid (AMPS) and/or its salts;
 - B) one or more macromonomers comprising
 - i) a terminal group ~~which is capable of polymerizing and which is~~ at least partially soluble in the reaction medium,
 - ii) a hydrophobic part, wherein the hydrophobic part ~~which is~~ hydrogen or a saturated or unsaturated, linear or branched, aliphatic, cycloaliphatic or aromatic (C₁-C₁₀₀)-hydrocarbon residue, and
 - iii) optionally a hydrophilic part based on polyalkylene oxides; and
 - D) optionally one or more additional at least mono- or polyolefinically unsaturated oxygen-, nitrogen-, sulfur-, phosphorus-, chlorine- and/or fluorine-comprising comonomers,
- ~~as crystallization inhibitor for the pesticidal active substances present in plant protection formulations.~~
2. (Currently Amended) The ~~use~~plant protection formulation as claimed in claim 1, wherein the comonomer A) ~~being is~~ the sodium salt and/or ammonium salt of acrylamidopropylmethylenesulfonic acid (AMPS).
3. (Currently Amended) The ~~use~~plant protection formulation as claimed in claim 1 and/or 2, wherein the one or more macromonomers B) being these according to are of the formula (1)



in which

R¹ is a vinyl, allyl, acryloyl, methacryloyl, seneciroyl or crotonyl residue;
R² and R⁴ are, independently of one another, (C₂-C₄)-alkylene;
x and z are, independently of one another, an integer between 0 and 500,
~~preferably with x + z greater than or equal to 1;~~
Y is O, S, PH or NH, ~~preferably O;~~ and
R³ is hydrogen or a saturated or unsaturated, linear or branched, aliphatic,
cycloaliphatic or aromatic (C₁-C₁₀₀)-hydrocarbon residue, ~~preferably~~
~~(C₄-C₃₀)-hydrocarbon residue.~~

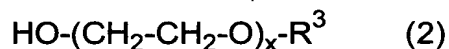
4. (Currently Amended) The plant protection formulation ~~use~~ as claimed in claim 3, wherein

R¹ ~~being~~ is an acryloyl or methacryloyl residue;
R² and R⁴ ~~being~~ is, independently of one another, C₂-alkylene or C₃-alkylene;
x and z ~~being~~ is, independently of one another, an integer between 0 and 50,
~~preferably with x + z greater than or equal to 1;~~
R³ being an aliphatic (C₄-C₂₂)-alkyl or -alkenyl residue, ~~preferably (C₁₀-C₂₂)-alkyl or -alkenyl residue;~~
a phenyl residue;
a (C₁-C₂₂)-alkylphenyl residue, ~~preferably sec-butyl- or n-butyl-~~
~~alkylphenyl residue;~~
a poly((C₁-C₂₂)-alkyl)phenyl residue, ~~preferably tris(sec-butyl)phenyl~~
~~residue and tris(n-butyl)phenyl residue; or~~
a polystyrylphenyl residue, ~~preferably tristyrylphenyl residue.~~

5. (Currently Amended) The plant protection formulation ~~use~~ as claimed in claim 4, wherein the R³ residue ~~being~~ is a 2,4,6-tris(sec-butyl)phenyl residue or 2,4,6-tris(1-phenylethyl)phenyl residue.

6. (Currently Amended) The plant protection formulation use as claimed in claim 1, ~~the polymers being able to be~~ wherein the crystallization inhibitor is prepared by radical copolymerization of

- A) acrylamidopropylmethylenesulfonic acid (AMPS), the sodium salt of acrylamidopropylmethylenesulfonic acid (AMPS) and/or the ammonium salt of acrylamidopropylmethylenesulfonic acid, ~~preferably the ammonium salt of acrylamidopropylmethylenesulfonic acid (AMPS);~~
- B) one or more macromonomers ~~chosen~~ selected from the group consisting of ~~the esters~~ formed from methacrylic acid or acrylic acid, ~~preferably methacrylic acid,~~ and compounds of the formula (2)



~~in which~~ wherein x is a number between 0 and 50, ~~preferably 1 and 50,~~ particularly ~~preferably 5 and 30,~~ and

R³ is a (C₁₀-C₂₂)-alkyl residue; and

- C) optionally one or more comonomers ~~chosen~~ selected from the group consisting of acrylamide, vinylformamide, N-vinylmethyleacetamide, sodium methallylsulfonate, hydroxyethyl methacrylate, acrylic acid, methacrylic acid, maleic anhydride, methacrylamide, vinyl acetate, N-vinylpyrrolidone, vinylphosphonic acid, styrene, styrenesulfonic acid (Na salt), t-butyl acrylate and methyl methacrylate.

7. (Currently Amended) The plant protection formulation use as claimed in at least one of claims 1 to 6, claim 1, wherein the one or more macromonomers B) being esters is at least one ester formed from acrylic acid or methacrylic acid and alkyl ethoxylates ~~chosen~~ selected from the group consisting of the

(C₁₀-C₁₈)-fatty alcohol polyglycol ethers with 8 EO units,

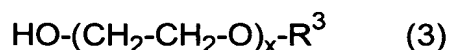
C₁₁-oxo alcohol polyglycol ethers with 8 EO units,

(C₁₂-C₁₄)-fatty alcohol polyglycol ethers with 7 EO units,

(C₁₂-C₁₄)-fatty alcohol polyglycol ethers with 11 EO units,
(C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 8 EO units,
(C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 15 EO units,
(C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 11 EO units,
(C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 20 EO units,
(C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 25 EO units,
(C₁₈-C₂₂)-fatty alcohol polyglycol ethers with 25 EO units,
iso(C₁₆-C₁₈)-fatty alcohol polyglycol ethers with 25 EO units ~~and/or~~ and
C₂₂-fatty alcohol polyglycol ethers with 25 EO units.

8. (Currently Amended) The plant protection formulation ~~use~~ as claimed in claim 1, ~~the polymers being able to be~~ wherein the crystallization inhibitor is prepared by radical copolymerization of

- A) acrylamidopropylmethylenesulfonic acid (AMPS), the sodium salt of acrylamidopropylmethylenesulfonic acid (AMPS) and/or the ammonium salt of acrylamidopropylmethylenesulfonic acid, ~~preferably the ammonium salt of acrylamidopropylmethylenesulfonic acid (AMPS);~~
- B) one or more macromonomers ~~chosen~~ selected from the group of ~~the~~ consisting of esters formed from methacrylic acid or acrylic acid, ~~preferably methacrylic acid,~~ and compounds of the formula (3)



~~in which~~ wherein

x is a number between 0 and 50, ~~preferably 1 and 50, particularly preferably 5 and 30,~~ and

R³ is a poly((C₁-C₂₂)-alkyl)phenyl residue, ~~preferably tris(sec-butyl)phenyl residue and tris(n-butyl)phenyl residue, particularly preferably 2,4,6-tris(sec-~~

~~butyl)phenyl residue, or and a tris(styryl)phenyl residue, preferably 2,4,6-tris(1-phenylethyl)phenyl residue; and~~

- C) optionally one or more comonomers chosen from the group consisting of acrylamide, vinylformamide, N-vinylmethacetamide, sodium methallylsulfonate, hydroxyethyl methacrylate, acrylic acid, methacrylic acid, maleic anhydride, methacrylamide, vinyl acetate, N-vinylpyrrolidone, vinylphosphonic acid, styrene, styrenesulfonic acid (Na salt), t-butyl acrylate and methyl methacrylate.

9. (Currently Amended) The use-plant protection formulation as claimed in at least one of claims 1 to 8, claim 1, wherein the proportion of macromonomers B) in the ~~polymers being~~ polymer is from 50.1 to 99.9% by weight, preferably 70 to 95% by weight, particularly preferably 80 to 94% by weight.

10. (Currently Amended) The plant protection formulation use as claimed in at least one of claims 1 to 8, claim 1, wherein the proportion of macromonomers B) in the ~~polymers being~~ polymer is from 0.1 to 50% by weight, preferably 5 to 25% by weight, particularly preferably 6 to 20% by weight.

11. (Currently Amended) The use-plant protection formulation as claimed in at least one of claims 1 to 9, claim 1, wherein the number-average molecular weight of the ~~polymers being~~ polymer is from 1000 to 20 000 000 g/mol, preferably 20 000 to 5 000 000 g/mol, particularly preferably 50 000 to 1 500 000 g/mol.

12. (Currently Amended) The plant protection formulation use as claimed in at least one of claims 1 to 11, the polymers being claim 1, wherein the crystallization inhibitor is crosslinked.

13. (Currently Amended) The plant protection formulation use as claimed in at least one of claims 1 to 12, claim 1, wherein the radical copolymerization being is a precipitation polymerization reaction, preferably in tert-butanol.

14. (Currently Amended) The plant protection formulation use as claimed in at least one of claims 1 to 13, ~~the plant protection formulations, based on the finished formulations, comprising claim 1, wherein the crystallization inhibitor is present from 0.01 to 10% by weight, based on the plant protection formulation preferably 0.1 to 7% by weight, particularly preferably 0.5 to 5% by weight, polymers.~~

15. (Currently Amended) The plant protection formulation use as claimed in at least one of claims 1 to 14, ~~the plant protection formulations comprising, as claim 1, wherein the at least one~~ pesticidal active substances, one or more substances chosen from substance is selected from the group consisting of herbicides, insecticides, fungicides, acaricides, bactericides, molluscicides, nematocides and rodenticides.

16. (Currently Amended) The plant protection formulation use as claimed in claim 15, ~~claim 1, wherein the at least one~~ pesticidal active substances being substance is selected from the group consisting of sulfonates, anilides, phenylurea derivatives, azoles, triazines, propionic acid derivatives, carbamates, pyrazolines, tebuconazole, hexaconazole, phenmedipham, desmedipham, linuron ~~and/or and~~ trifluralin.

17. (Currently Amended) The plant protection formulation use as claimed in at least one of claims 1 to 16, ~~claim 1, wherein the plant protection formulations being formulation is in a form selected from the group consisting of~~ emulsifiable concentrates (EC), oil-in-water emulsions (EW), water-in-oil emulsions, suspension concentrates (SC), suspoemulsions (SE), suspensions, microemulsions (ME) or and dispersions.

18. (Currently Amended) The plant protection formulation use as claimed in claim 17, ~~1, wherein the plant protection formulations being formulation is an~~ emulsifiable concentrates-concentrate (EC) or a suspension concentrates-concentrate (SC).

19. (Currently Amended) The plant protection formulation ~~use~~ as claimed in ~~at least one of claims 1 to 16, claim 1, wherein~~ the plant protection ~~formulations being these~~ formulation is obtained by diluting a composition selected from the group consisting of emulsifiable concentrates (EC), oil-in-water emulsions (EW), water-in-oil emulsions, suspension concentrates (SC), suspoemulsions (SE), suspensions, microemulsions (ME) ~~or~~ and dispersions with water and/or solvents, ~~preferably water.~~
20. (Currently Amended) The plant protection formulation ~~use~~ as claimed in claim ~~19, 1, wherein~~ the plant protection ~~formulations being these~~ formulation is obtained by diluting a composition selected from the group consisting of emulsifiable concentrates (EC) ~~or~~ and suspension concentrates (SC) with water and/or solvents, ~~preferably water.~~
21. (New) The plant protection formulation as claimed in claim 3, wherein $x + y$ is greater than or equal to 1.
22. (New) The plant protection formulation as claimed in claim 3, wherein R^3 is a $C_1 - C_{30}$ hydrocarbon residue.
23. (New) The plant protection formulation as claimed in claim 3, wherein y is oxygen.
24. (New) The plant protection formulation as claimed in claim 4, wherein $x + y$ is greater than or equal to 1.
25. (New) The plant protection formulation as claimed in claim 4, wherein R^3 is a $C_{10} - C_{22}$ alkyl or alkenyl residue.
26. (New) The plant protection formulation as claimed in claim 4, wherein R^3 is a

sec butyl or n-butyl alkylphenyl residue.

27. (New) The plant protection formulation as claimed in claim 4, wherein R³ is a tris(sec butyl)phenyl or a tris(n butyl)phenyl residue.

28. (New) The plant protection formulation as claimed in claim 4, wherein R³ is a tristyrylphenyl residue.

29. (New) The plant protection formulation as claimed in claim 6, wherein x is between 1 and 50.

30. (New) The plant protection formulation as claimed in claim 6, wherein x is between 5 and 30.

31. (New) The plant protection formulation as claimed in claim 6, wherein the comonomer A) is the ammonium salt of acrylamidopropylmethylenesulfonic acid.

32. (New) The plant protection formulation as claimed in claim 6, wherein the one or more macromonomers is methacrylic acid.

33. (New) The plant protection formulation as claimed in claim 8, wherein the comonomer A) is the ammonium salt of acrylamidopropylmethylenesulfonic acid.

34. (New) The plant protection formulation as claimed in claim 8, wherein the one or more macromonomers B) is methacrylic acid.

35. (New) The plant protection formulation as claimed in claim 8, wherein x is between 1 and 50.

36. (New) The plant protection formulation as claimed in claim 8, wherein x is between 5 and 30.

37. (New) The plant protection formulation as claimed in claim 8, wherein R^3 is tris(sec butyl)phenyl residue.
38. (New) The plant protection formulation as claimed in claim 8, wherein R^3 is 2, 4, 6 tris(sec butyl)phenyl residue.
39. (New) The plant protection formulation as claimed in claim 8, wherein R^3 is 2,4,6, tris(1-phenylethyl)phenyl residue.
40. (New) The plant protection formulation as claimed in claim 1, wherein the proportion of macromonomers B) in the polymers is from 70 to 95% by weight.
41. (New) The plant protection formulation as claimed in claim 1, wherein the proportion of macromonomers B) in the polymers is from 80 to 94% by weight.
42. (New) The plant protection formulation as claimed in claim 1, wherein the proportion of macomonomers B) in the polymer is from 5 to 25% by weight.
43. (New) The plant protection formulation as claimed in claim 1, wherein the proportion of macomonomers B) in the polymer is from 6 to 20% by weight.
44. (New) The plant protection formulation as claimed in claim 1, wherein the number-average molecular weight of the polymer is from 20 000 to 5 000 000 g/mol.
45. (New) The plant protection formulation as claimed in claim 1, wherein the number-average molecular weight of the polymer is from 50 000 to 1 500 000 g/mol.
46. (New) The plant protection formulation as claimed in claim 13, wherein the precipitation polymerization reaction occurs in tert butanol.

47. (New) The plant protection formulation as claimed in claim 1, wherein the crystallization inhibitor is present from 0.1 to 7% by weight, based on the plant protection formulation.

48. (New) The plant protection formulation as claimed in claim 1, wherein the crystallization inhibitor is present from 0.5 to 5% by weight, based on the plant protection formulation.

49. (New) A crystallization inhibitor for a pesticidal active substance in a plant protection formulation, prepared by radical copolymerization of

- A) acrylamidopropylmethylenesulfonic acid (AMPS) and/or its salts;
- B) one or more macromonomers comprising
 - i) a terminal group capable of polymerizing and is at least partially soluble in the reaction medium,
 - ii) a hydrophobic part, wherein the hydrophobic part is hydrogen or a saturated or unsaturated, linear or branched, aliphatic, cycloaliphatic or aromatic (C₁-C₁₀₀)-hydrocarbon residue, and
 - iii) optionally a hydrophilic part based on polyalkylene oxides; and
- D) optionally one or more additional at least mono- or polyolefinically unsaturated oxygen-, nitrogen-, sulfur-, phosphorus-, chlorine- and/or fluorine-comprising comonomers.

50. (New) A process for preparing a plant protection formulation comprising the step of adding at least one pesticidal active substance and a crystallization inhibitor to the plant protection formulation, wherein the crystallization inhibitor is prepared by radical copolymerization of

- A) acrylamidopropylmethylenesulfonic acid (AMPS) and/or its salts;
- B) one or more macromonomers comprising
 - i) a terminal group capable of polymerizing and is at least partially soluble in the reaction medium,
 - ii) a hydrophobic part, wherein the hydrophobic part is hydrogen or a

saturated or unsaturated, linear or branched, aliphatic, cycloaliphatic or aromatic (C₁-C₁₀₀)-hydrocarbon residue, and

iii) optionally a hydrophilic part based on polyalkylene oxides; and

D) optionally one or more additional at least mono- or polyolefinically unsaturated oxygen-, nitrogen-, sulfur-, phosphorus-, chlorine- and/or fluorine-comprising comonomers.

51. (New) A plant protection formulation made in accordance with the process of claim 50.